REMARKS

A Notice of Appeal and Appeal Brief were submitted on 9 December 2010 and 27 June 2011, respectively. The Examiner's Answer was mailed 7 December 2011.

A new ground of rejection was presented in the Examiner's Answer. Accordingly, Appellant is required within two months from the date of the Examiner's Answer to either (1) reopen prosecution by filing a reply under 37 C.F.R. §1.111 or (2) maintain the appeal.

Applicants elect to re-open prosecution and submit herewith a reply under 37 C.F.R. §1.111 with amendment. The claim amendment and remarks presented herein are relevant to the rejection of record and the new ground of rejection.

I. Claim amendment

Claim 1 has been amended to clarify the structure of the expander device of the claimed mounting apparatus.

As claimed, the expander device **24** has a circumference and comprises a plurality of circumferentially spaced-apart arms **26**. By definition, an arm is "*...a long part projecting from a central support*" (The American Heritage Dictionary, 2d Edition). In an embodiment of the claimed invention, the rear end of each arm of the expander device is mounted to the circumference of the expander device and the other sides or surfaces of the arm project from that support (See page 10, lines 16-19 and Figs. 9-12). Accordingly, as supported by the written description and figures, claim 1 has been amended to provide that all surfaces of each arm projecting from the circumference are exposed, i.e., the surfaces are uncovered and visible.

Claim 1 has been further amended to clarify that the inner thickness of each arm, when measured from the back end of the arm to the forward end, tapers in a radial direction towards the center of the circumference. Specifically, the arms converge from the circumference to a forward end **30** (See page 10, lines 19-21 and Figs. 9-12). As the arms converge from the circumference, the inner thickness of the arms taper in a radial direction towards the center of the circumference.

Applicants submit that that claim amendments are fully supported by the application as filed and that no new matter has been introduced.

II. Claim rejections

Claims 1, 2, 5-9, 15 and 16 are rejected under 35 U.S.C. §103 as being unpatentable over US 4,548,201 to Yoon ("Yoon") in view of US 5,643,290 to Clark et al. ("Clark").

A. Yoon in view of Clark "A"

This rejection was argued in the Appeal Brief and addressed by the Examiner in the Examiner's Answer. It is the Examiner's position that it would have been obvious to modify at least two arms of the ring dilator (Figure 21A) as illustrated by Yoon to be insertable in longitudinal channels **108** of the ring loader **100**. The Examiner relies on Clark for the alleged motivation that it would have been advantageous to insert arms of the ring dilator between fingers of the ring loader to provide better alignment and loading of ring clip **10**.

B. Yoon in view of Clark "B"

This rejection is the new ground of rejection which, as set forth on page 4 of the Examiner's Answer, represents an alternative interpretation of the references that may have gone unnoticed during prosecution. Specifically, it is alleged that it would have been obvious in view of Clark to have provided ribs on the underside of the arms of the ring dilator (Figure 21A) as illustrated by Yoon and slots on the ring loader **100** in order to better align the ring dilator and the ring loader and thereby to provide an even pushing force to ring clip **10**. The Examiner relies on Clark for the alleged motivation that it would have been advantageous to have a keyed alignment between ribs on the underside of the dilator arms (Fig. 21A) and slots on the ring loader **100** to prevent rotation of the ring dilator which could cause damage to the teeth in channel **118**.

III. Argument

Applicants submit that amended claim 1 and the following comments are relevant to both rejection "A" (Yoon in view of Clark "A") and the new ground of rejection "B" (Yoon in view of Clark "B").

In accordance with an embodiment of the claimed invention, the written description and corresponding figures disclose that the rear end of each arm of the expander device is mounted to the circumference of the expander device and the other sides or surfaces of the arm project from that support. Amended claim 1 provides that all surfaces of each arm projecting from that

support are exposed, i.e., the surfaces are uncovered and visible (See Figures 9-12). Advantageously, this exposed design facilitates a more precise alignment of the arms of the expander device with the fingers of the adapter to ensure a more controlled manoeuvring of the elastic cord along the fingers of the adapter (See Figures 13-15 and page 11, lines 2-11).

The ring dilator illustrated by Yoon at Figure 21A has an outer surface and an exposed front end at the area forming a central aperture. However, in contrast to the claimed invention, the ring dilator disclosed by Yoon has an inner surface, or underside, that is not visible. It is the unexposed underside of the ring dilator of Yoon which the Examiner proposes to modify. Such a modification is contrary to the exposed design of the expander device of the claimed invention.

Similarly, the secondary reference to Clark discloses a dome component **90** with internal ribs **92, 94, 96** and **98** for operative and functional mating with slots **60, 62, 64** and **66** of cone **58** (See Figs. 4 and 5A). Each rib is connected with the interior of the dome component. As represented in Figure 5A, the dome ribs include an extend region generally **112** for facilitating initial engagement of the ribs with their corresponding grooves (See col. 10, lines 1-4). Clark teaches, however, that it is the matrix of internal ribs that provides effective strength of the dome while initiating and maintaining alignment of the dome and cone during use (See col. 9, lines 48-60). Such a teaching is contrary to the completely exposed design of the expander device of the claimed invention.

It should be noted that the disclosures by Clark which the Examiner has cited in support of both rejections, i.e., Yoon in view of Clark "A" and "B", are directed to the cooperation of cone grooves and dome ribs (See Abstract; col. 2, lines 42-46; col. 4, lines 18-20; col. 12, lines 42-50; and col. 13, lines 17-25). For example, the disclosure at column 12, lines 42-50, emphasizes the cooperation of the cone member with the internal features of the dome. There is no suggestion by Clark of a cooperation between the cone groves and exposed ribs without the effective strength provided by the dome.

Furthermore, amended claim 1 also clarifies that it is the inner thickness of the arms, when measured from the back end of the arm to the forward end, that tapers in a radial direction towards the center of the circumference. Rejections "A" and "B" are based on the Examiner's position that the thickness of the arms of the ring dilator (Figure 21A) disclosed by Clark tapers in a radial direction towards the center of the circumference of the ring dilator (See Examiner's

Answer at pages 5 and 8). With reference to Figure 21A of Yoon, it appears that the dimension of the lateral surface of the arms of the ring dilator tapers toward the center. However, there is no disclosure or suggestion that the internal thickness of the arms taper in a radial direction. Rather, the only reasonable interpretation of Figure 21A is that the thickness of the arms between the outer and inner surfaces of the arms is uniform throughout the length of the ring dilator.

With specific regard to Rejection "A", neither Yoon nor Clark suggests the exposed design of the expander device of the claimed invention. The ring dilator (Figure 21A) disclosed by Yoon has an inner underside which is not exposed. Similarly, Clark requires the cooperation of cone groves and a dome having a matrix of internal ribs for initiating and maintaining alignment of the dome and cone during use. Moreover, neither Yoon nor Clark suggests a expander device having arms having an inner thickness which tapers in a radial direction from the circumference towards to center. As illustrated by Yoon at Figure 21A and Clark at Figure 5A, the arms in each case have a uniform thickness.

With specific regard to Rejection "B", it is submitted that the addition of ribs on the underside of the arms of the ring dilator (Figure 21A) of Yoon, i.e., on the underneath surface of the ring dilator, would not result in the claimed invention. Specifically, the surfaces of each arm of the expander device of the claimed invention is exposed.

Advantageously, it is the combination of the exposed design and tapering inner thickness of the arms of the ring dilator that facilitates a more precise alignment of the arms of the expander device with the fingers of the adapter to ensure a more controlled manoeuvring of the elastic cord along the fingers of the adapter. Whether taken alone or in combination, neither Yoon nor Clark suggests a expander device with exposed design of arms having an inner thickness tapering in a radial direction.

For all of the foregoing reasons, Applicants submit that a *prima facie* case of obviousness has not been established.

CONCLUSION

Applicants submit that this Applicants submit this reply under 37 C.F.R. §1.111 complies with 37 C.F.R. §41.39 to re-open prosecution.

Any fees due in connection with this response should be charged to Deposit Account No. 23-1703.

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Respectfully submitted,

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